



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,360	09/24/2001	Gerald J. Ware	WAR1394.07A	8250
8156 7590 04/16/2007 JOHN P. O'BANION O'BANION & RITCHEY LLP 400 CAPITOL MALL SUITE 1550 SACRAMENTO, CA 95814			EXAMINER BECKER, DREW E	
			ART UNIT 1761	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/16/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

09/963,360

Applicant(s)

WARE, GERALD J.

Examiner

Drew E. Becker

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 31-33,35-39,59-61 and 69-84 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31-33,35-39,59-61 and 69-84 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 79 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 31-33, 35, 38-39, 59-61, 69-75, and 77-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hohm et al [Pat. No. 3,402,479] in view of Bussmann et al [Pat. No. 6,000,144] and JP 09113132A.

Hohm teaches a device comprising a housing (Figure 1, #50), three drying zones (Figure 1, #86, 88, 90), a perforated conveyor (Figure 1, #14), three source of hot air (Figure 2, #64), a source of air fro each zone (Figure 1, #41), fans which recirculate the heated air (Figure 2, #58), slots in the zone partitions which permit air to circulate between zones (column 3, line 71), and the heated air inherently including nitrogen.

Hohm et al do not recite a bed of spherical support members, an ultrasound source, and means for separating the spheres and food such as a vibrating table. Phrases such as "at a rate of..." and "at a temperature of..." are merely preferred methods of using the claimed apparatus. JP 09113132A teaches a food drying apparatus comprising an

Art Unit: 1761

ultrasound source (abstract). It would have been obvious to one of ordinary skill in the art to incorporate the ultrasound source of JP 09113132A into the invention of Hohm et al since both are directed to drying devices, since Hohm et al already included hot air to heat the air (Figure 2, #64), and since JP 09113132A teaches that combination of ultrasonic energy and conventional drying provided superior drying performance (abstract). Bussmann et al teach a device comprising spherical support members which aid in drying (column 5, lines 60-65) and a vibrating screen to separate spheres and product (column 8, line 19). It would have been obvious to one of ordinary skill in the art to incorporate the plurality of spheres of Bussmann et al into the invention of Hohm et al, in view of JP 09113132A, since all are directed to drying devices, since Hohm et al already included a perforated belt capable of holding the spheres (Figure 1, #14), and since Bussmann et al teach that it is old to employ a bed of spherical support media to form a drying bed which provides for even application of particulate food products to be dried over the drying bed, thereby facilitating faster drying of the products (column 1, lines 4-60).

4. Claims 81-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hohm et al in view of Bussmann et al and Scott [Pat. No. 4,419,834].

Hohm et al teach a device comprising a housing (Figure 1, #50), three drying zones (Figure 1, #86, 88, 90), a perforated conveyor (Figure 1, #14), three source of hot air (Figure 2, #64), a source of air fro each zone (Figure 1, #41), fans which recirculate the heated air (Figure 2, #58), slots in the zone partitions which permit air to circulate between zones (column 3, line 71), and the heated air inherently including nitrogen.

Art Unit: 1761

Hohm et al do not recite a bed of spherical support members, vanes, and a heat exchanger. Bussmann et al teach a device comprising spherical support members which aid in drying (column 5, lines 60-65) and a vibrating screen to separate spheres and food (column 8, line 19). It would have been obvious to one of ordinary skill in the art to incorporate the plurality of spheres of Bussmann et al into the invention of Hohm et al, since both are directed to drying devices, since Hohm et al already included a perforated belt capable of holding the spheres (Figure 1, #14), and since Bussmann et al teach that it is old to employ a bed of spherical support media to form a drying bed which provides for even application of particulate food products to be dried over the drying bed, thereby facilitating faster drying of the products (column 1, lines 4-60). Scott teaches a drying device comprising a perforated belt with vanes (Figure 1, #64) and a heat exchanger (Figure 2, #48). It would have been obvious to one of ordinary skill in the art to incorporate the heat exchanger and vanes of Scott into the invention of Hohm et al, in view of Bussmann et al, since all are directed to drying devices, since Hohm et al already included a perforated belt (Figure 1, #14) and heat source (Figure 2, #64), since vanes would help contain the product and spheres and prevent jams, and since a heat exchanger provided more energy efficient heating as compared to electric heating elements.

5. Claims 36 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hohm et al, in view of Bussmann et al and JP 09113132A, as applied above, and further in view of Scott.

Art Unit: 1761

Hohm et al, Bussmann et al, and JP 09113132A teach the above mentioned components. Hohm et al, Bussmann et al, and JP 09113132A do not recite vanes or a heat exchanger. Scott teaches a drying device comprising a perforated belt with vanes (Figure 1, #64) and a heat exchanger (Figure 2, #48). It would have been obvious to one of ordinary skill in the art to incorporate the heat exchanger and vanes of Scott into the invention of Hohm et al, in view of Bussmann et al and JP 09113132A, since all are directed to drying devices, since Hohm et al already included a perforated belt (Figure 1, #14) and heat source (Figure 2, #64), since vanes would help contain the product and spheres and prevent jams, and since a heat exchanger provided more energy efficient heating as compared to electric heating elements.

6. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hohm et al, in view of Bussmann et al and JP 09113132A, as applied above, and further in view of Oates et al [Pat. No. 3,214,844].

Hohm et al, Bussmann et al, and JP 09113132A teach the above mentioned components. Hohm et al, Bussmann et al, and JP 09113132A do not recite a container on the conveyor. Oates et al teach a drying device comprising a conveyor with containers (Figure 1, #58). It would have been obvious to one of ordinary skill in the art to incorporate the containers of Oates et al into the invention of Hohm et al, in view of Bussmann et al and JP 09113132A, since all are directed to drying devices, since Hohm et al already included a perforated belt (Figure 1, #14), and since the containers of Oates et al provided a convenient means for holding product and ensuring a consistent dwell time for the product.

Art Unit: 1761

7. Claim 84 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hohm et al, in view of Bussmann et al and Scott, as applied above, and further in view of JP 09113132A.

Hohm et al, Bussmann et al, and Scott teach the above mentioned components. Hohm et al, Bussmann et al, and Scott do not recite ultrasound. JP 09113132A teaches a food drying apparatus comprising an ultrasound source (abstract). It would have been obvious to one of ordinary skill in the art to incorporate the ultrasound source of JP 09113132A into the invention of Hohm et al, in view of Bussmann et al and Scott, since all are directed to drying devices, since Hohm et al already included hot air to heat the air (Figure 2, #64), and since JP 09113132A teaches that combination of ultrasonic energy and conventional drying provided superior drying performance (abstract).

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wiggins et al [Pat. No. 4,569,658], Benson [Pat. No. 4,038,021], and Quester [Pat. No. 3,594,918] teach drying devices.

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 31-33, 35-39, 59-61, and 69-84 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Art Unit: 1761

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

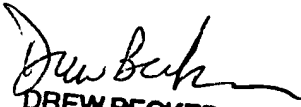
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew E. Becker whose telephone number is 571-272-1396. The examiner can normally be reached on Mon.-Fri. 8am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 1761

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
DREW BECKER  
PRIMARY EXAMINER

4-12-07